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IS 11583 (1986): Method for sensory evaluation of Indian made foreign liquors (IMFL) [FAD 14: Drinks and Carbonated Beverages]



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*Indian Standard*

METHOD OF SENSORY  
EVALUATION OF INDIAN MADE  
FOREIGN LIQUORS (IMFL)

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INDIAN STANDARDS INSTITUTION  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

# *Indian Standard*

## METHOD OF SENSORY EVALUATION OF INDIAN MADE FOREIGN LIQUORS (IMFL)

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*Indian Standard*

**METHOD OF SENSORY  
EVALUATION OF INDIAN MADE  
FOREIGN LIQUORS (IMFL)**

**0. FOREWORD**

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 28 February 1986, after the draft finalized by the Sensory Evaluation Sectional Committee had been approved by the Agricultural and Food Products Division Council.

**0.2** To evaluate the flavour of Indian made foreign liquors (IMFL) by chemical and instrumental methods or routine quality control is not practicable. The other limitation of instrumental analysis is that it cannot integrate the flavour impression as is gathered by human senses. The analysis of quality of IMFL can, therefore, be done conveniently by sensory evaluation which gives the sum total of interaction of different flavour components. This standard, based on practices being followed by IMFL manufacturers, has been evolved to guide the evaluation on a more acceptable and uniform manner.

**0.3** In the preparation of this standard substantial assistance has been derived from Mohan Meakin Ltd, Ghaziabad (UP) and from McDowell & Co Ltd, Kerala.

**0.4** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS:2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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**1. SCOPE**

**1.1** This standard prescribes basic requirements, method and evaluation for sensory evaluation of Indian made foreign liquors.

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\*Rules for rounding off numerical values (*revised*).

## 2. GENERAL TEST CONDITIONS

**2.1 Laboratory Set-Up** — The laboratory set-up shall be as given in 4 of IS:6273 ( Part 1 )-1971\*.

**2.2** The testing room must be kept as free from odours and sound as possible. This can be achieved by air conditioning with activated carbon filters installed in the system. The lighting system should provide an adequate comfortable level of illumination. Special light effects, using coloured filters or bulbs may be desired to hide irrelevant differences in colour and other aspects of appearance. Individual panel booths are essential to avoid mutual distraction among panel members. There should be an atmosphere of comfort and relaxation in the testing room. The temperature and humidity of the room should be controlled. Suitable seats should be provided to give a comfortable posture while carrying out the tests.

**2.3 Time of Testing** — The test should be carried out by the Panelists between 10-30 to 12-30 h. The test should not be carried out when the panelists are really thirsty.

## 3. CONTAINER FOR SAMPLES

**3.1** Identical glass containers should be used. They should be clean and graduated to enable easy and accurate dilution. The containers should have a capacity of around 120 ml.

## 4. PREPARATION OF SAMPLES

**4.1 Sampling** — Samples should be drawn at room temperature and the volume of the sample to be taken for testing should be 20-30 ml. Samples should be drawn according to the provision given in IS:3753-1984†.

**4.2 Presentation of Samples** — The following recommendations are made as general guides to be used for conducting the tests, to control some of the possible errors caused by psychological distractions.

**4.2.1** While presenting the samples for testing, uniformity should be maintained in all factors such as quantity of sample, the containers and temperature of the sample.

**4.2.2** If samples are designated by code, to avoid bias, it is recommended to (a) use two or three digit codes generated from a table of random numbers (b) use multiple codes for a sample even in the course of a single session (c) avoid the temptation to use a particular set of codes consistently to expedite tabulation of results.

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\*Guide for sensory evaluation of foods: Part 1 Optimum requirements.

†Methods of sampling for alcoholic drinks.



**4.2.3** When more than one sample is tested, balance the order of presentation among members so that over the entire test each sample is examined in each position, or time sequence, an equal number of times.

**4.2.4** Avoid giving any hint of the expected results of a test, and do not discuss the samples with members prior to testing.

## 5. TASTER'S CONDITIONS

### 5.1 Physiological Conditions of Panel Members

**5.1.1 *Smoking and Chewing*** — The members should not smoke or chew at least 20 minutes before testing.

**5.1.2 *Eating*** — Do not test for 1 hour after meals. If the tests are done in the afternoon, the panel members should avoid eating highly spiced foods for lunch.

**5.1.3 *Talking*** — During testing talking should be avoided.

**5.1.4 *Perfumes*** — The members should not use cosmetics such as face lotions, perfumes or lipstick on the day of taste panel.

**5.1.5 *Health*** — Do not use panel members who are ill particularly when suffering from the common cold.

## 6. CONDITIONS FOR TESTING

**6.1** For rinsing the mouth, plain demineralised water is the best.

## 7. SENSORY EVALUATION CHARACTERISTICS

**7.1** Total score for individual IMFL are mentioned against each IMFL and may be divided accordingly.

### 7.1.1 *Scale for Evaluation*

<i>Brandy, Whisky, Gin</i>	<i>Rum, Vodka</i>
17 and above = very good	12 and above = very good
15 to 16 = good	11 = good
13 to 14 = satisfactory	10 = satisfactory
10 to 12 = not satisfactory	8 to 9 = not satisfactory
Below 10 = bad	Below 8 = bad

## 7.1.2 Brandy ( Total Score 20 )

Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
i)	Colour and appearance	Very bright amber colour, very sparkling, absolutely free from blackish shade, suspended matter and sediment	5	5
		Amber colour, sparkling, clear from blackish shade, suspended matter and sediment	4	—
		Amber colour, clear, free from blackish shade, sediment and suspended matter	3	—
		Not clear, too light colour or too dark blackish shade, no sediment and cloudy	2	—
		Hazy/cloudy, very blackish, suspended matter and sediment	1 and below	—
ii)	Taste	Extremely mellow gentle pleasant, woody and rich, fully matured grape note, absolutely natural and free from synthetic flavour, very smooth and the exquisite bouquet brings on the tongue a feeling that is extremely pleasing. It is absolutely smooth and not at all satiating	10	10
		Mellow, gentle pleasant woody and matured grape note, very natural, very smooth and no synthetic note	9-8	—
		Pleasant synthetic flavour, quite smooth	7-6	—
		Unpleasant flavour, too synthetic harsh	5-4	—

Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		Very unpleasant, extremely synthetic, too harsh, pungent taste of impurities like fusel oil persists	Below 3	—
iii)	Odour	Very mellow gentle pleasant, woody rich matured grape note, absolutely natural, free from synthetic odour. The exquisite wine/sherry note persists and is well bound to the liquor	5	5
		A very mellow note of matured grape spirit, very natural, free from synthetic odour. The aroma does not disappear fast	4	—
		Pleasant typical note of brandy, attractive synthetic odour which is fruity. Aroma neither too strong nor too mild	3	—
		Unpleasant odour, very synthetic, aroma too much or too little	2	—
		Very unpleasant smell, very synthetic, smell of impurities like fusel oil persists	1 and below	—

### 7.1.3 Whisky ( Total Score 20 )

i)	Colour and appearance	Very bright amber colour, very sparkling, very clean absolutely free from blackish shade, suspended matter and sediment	5	5
		Amber colour, sparkling, clear, free from blackish shade, suspended matter and sediment	4	—
		Amber colour, clear, free from blackish shade, sediment and suspended particles	3	—

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Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		Not clear, too light colour or too dark, blackish shade no sediment and not cloudy	2	—
		Hazy/cloudy, very blackish, suspended matter and sediment	1 and below	—
ii)	Odour	Very mellow gentle pleasant woody rich malt note, absolutely natural, free from synthetic odour. A very attractive smoky odour. The exquisite aroma persists and is well bound to the liquor	5	5
		A very mellow note of matured malt spirit, free from synthetic odour, natural. The aroma does not disappear fast	4	—
		Pleasant typical whisky note attractive synthetic odour. The aroma is neither too strong nor too mild	3	—
		Unpleasant odour, very synthetic aroma too much or too little	2	—
		Very unpleasant smell, very synthetic, smell of impurities like fusel oil persists	1 and below	—
iii)	Taste	Extremely mellow, gentle pleasant woody and rich, fully matured malt note. There is a very appealing smoky flavour, absolutely natural and free from synthetic flavour. It is very smooth and the exquisite bouquet brings on the tongue a feeling that is extremely pleasing and not at all satiating	10	10

Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		Mellow gentle pleasant, woody matured malt note, very natural, very smooth and no synthetic note	8-9	—
		Pleasant synthetic flavour, quite smooth	6-7	—
		Unpleasant flavour, too synthetic, harsh	4-5	—
		Very unpleasant, extremely synthetic, too harsh, pungent, taste of impurities like fusel oil persists	Below 3	—

#### 7.1.4 Gin ( Total Score 20 )

i)	Odour and appearance	Crystal clear, very sparkling absolutely free from haze, sprangles, suspended matter and sediments	5	5
		Clear, very sparkling, absolutely free from haze, sprangles and suspended particles	4	—
		Clear, sparkling, not hazy, free from sprangles, sediment and suspended matter	3	—
		Not clear and sparkling, not hazy, free from sprangles and suspended particles	2	—
		Hazy/cloudy, suspended matter, sprangles and sediment	1 and below	—
ii)	Odour	A very pleasant gin note, typical of juniper berry, extremely delicate odour absolutely free from pungency. The exquisite aroma persists and is well bound to the liquor	10	10

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Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		A pleasant gin note typical of juniper berries, not pungent. The aroma does not disappear fast	8-9	—
		Typical gin note and not too pungent and no raw spirit smell	6-7	—
		Unpleasant pungent, aroma too much or too little	4-5	—
		Very unpleasant smell, very pungent, smell of fusel oil persists	Below 3	—
ii)	Taste	A very pleasant typical gin taste, the bouquet is very delicate and not at all pungent. It is very smooth and the exquisite flavour brings on the tongue a feeling that is extremely pleasing	5	5
		Pleasant gin taste, aroma very delicate, free from raw spirit taste, smooth	4	—
		Typical gin taste, pleasant aroma, quite smooth	3	—
		Unpleasant flavour, flavour too much or too little, harsh	2	—
		Very unpleasant flavour, very pungent and harsh, taste of fusel oil	1 and below	—
<b>7.1.5 Rum ( Total Score 15 )</b>				
i)	Colour and appearance	Very bright amber colour, sparkling, clear, absolutely free from blackish shade, suspended matter and sediment	5	5
		Deep amber colour, sparkling clear, free from blackish shade, suspended matter and sediments	4	—

Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		Deep amber colour, clear, free from blackish shade, sediment and big suspended matter	3	—
		Not clear, too light colour or too dark, blackish shade, no sediment, not cloudy	2	—
		Hazy/cloudy, very blackish, suspended matter and sediment	1 and below	—
ii)	Odour	A very mellow, gentle pleasant, woody rich, matured note of cane juice spirit. Absolutely natural, free from synthetic odour. The exquisite aroma persists and is well bound to the liquor	5	5
		A very mellow nature note of cane spirit, free from synthetic odour, natural, the aroma does not disappear fast	4	—
		Pleasant typical rum note, attractive synthetic odour. The aroma is neither too strong nor too mild	3	—
		Unpleasant odour, very synthetic, aroma too much or too little	2	—
		Very unpleasant smell, too synthetic smell of impurities like fusel oil persists	1 and below	—
iii)	Taste	A very mellow gentle pleasant woody rich, fully matured cane spirit note. Absolutely natural and free from any synthetic flavour. It is very smooth and the exquisite bouquet brings on the tongue a feeling that is extremely pleasing and not at all satiating	5	5

**IS : 11583 - 1986**

Sl No.	Characteristic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		Pleasant matured cane spirit note, very natural, not synthetic, very smooth	4	—
		Pleasant synthetic flavour, quite smooth	3	—
		Unpleasant flavour, too synthetic, harsh	2	—
		Very unpleasant, extremely synthetic, too harsh and pungent, too much fusel oil taste	1 and below	—
<b>7.1.6 Vodka ( Total Score 15 )</b>				
i)	Colour and appearance	Crystal clear, very sparkling, absolutely free from haze, sprangles, suspended matter and sediments	5	5
		Clear, very sparkling, absolutely free from haze, sprangles and suspended particles	4	—
		Clear, sparkling, not hazy, free from sprangles, sediments and big suspended matter	3	—
		Not clear and sparkling, not hazy free from sprangles and suspended matter	2	—
		Hazy/cloudy, suspended matter, sprangles and sediments	1 and below	—
ii)	Odour	Absolutely silent and perfectly neutral, does not give any faintest smell of even the most silent spirit	5	5
		Very silent and neutral, no strong smell or spirit	4	—



Sl No.	Character-istic	Requirements	Score	Maximum Number of Points
(1)	(2)	(3)	(4)	(5)
		Silent, neutral and not raw spirit smell	3	—
		Unpleasant odour, not silent	2	—
		Very unpleasant smell, very pungent, smell of fusel oil persists	1 and below	—
iii)	Taste	It is extremely neutral in taste, absolutely no off taste, very smooth	5	5
		Neutral in taste, no off taste, smooth	4	—
		Neutral in taste, quite smooth	3	—
		Not neutral and silent, harsh	2	—
		Very harsh and pungent, taste of fusel oil and impurities	1 and below	—

## INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

### Base Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

### Supplementary Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>
Plane angle	radian	rad
Solid angle	steradian	sr

### Derived Units

<i>Quantity</i>	<i>Unit</i>	<i>Symbol</i>	<i>Definition</i>
Force	newton	N	1 N = 1 kg. m/s <sup>2</sup>
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m <sup>2</sup>
Frequency	hertz	Hz	1 Hz = 1 c/s (s <sup>-1</sup> )
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m <sup>2</sup>